

## Amendments to the Claims

### Listing of the Claims:

This Listing of the Claims will replace all prior versions, and listings of the claims in the application.

1-124 (Canceled)

125. (Presently Amended): A pharmaceutical composition comprising a hapten-carrier conjugate, said pharmaceutical composition comprising

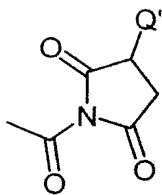
at least one hapten which is nicotine or a nicotine derivative; and

[[a]] at least one carrier which is a pseudomonas exotoxin ~~bacterial toxin,~~

and wherein said hapten and said carrier are linked by a branch selected from the group of chemical moieties identified by CJ reference number consisting of:

|                   |  |
|-------------------|--|
| CJ 0              | Q  |
| CJ 1              | $(\text{CH}_2)_n\text{Q}$  |
| CJ 1.1            | $\text{CO}_2\text{Q}$  |
| <del>CJ 1.2</del> | <del><math>\text{COQ}</math></del>                                 |
| <del>CJ 1.3</del> | <del><math>\text{OCH}_3</math></del>                               |
| CJ 2              | $\text{OCO}(\text{CH}_2)_n\text{Q}$                                |
| CJ 2.1            | $\text{OCOCH}=\text{Q}$  |
| CJ 2.2            | $\text{OCOCH}(\text{O})\text{CH}_2$                                |
| CJ 2.3            | $\text{OCO}(\text{CH}_2)_n\text{CH}(\text{O})\text{CH}_2$          |
| CJ 3              | $\text{CO}(\text{CH}_2)_n\text{COQ}$                               |
| CJ 3.1            | $\text{CO}(\text{CH}_2)_n\text{CNQ}$                               |
| CJ 4              | $\text{OCO}(\text{CH}_2)_n\text{COQ}$                              |
| CJ 4.1            | $\text{OCO}(\text{CH}_2)_n\text{CNQ}$                              |
| CJ 5              | $\text{CH}_2\text{OCO}(\text{CH}_2)_n\text{COQ}$                   |
| CJ 5.1            | $\text{CH}_2\text{OCO}(\text{CH}_2)_n\text{CNQ}$                   |
| CJ 6              | $\text{CONH}(\text{CH}_2)_n\text{Q}$                               |
| CJ 7              | $\text{Y}(\text{CH}_2)_n\text{Q}$                                  |
| CJ 7.1            | $\text{CH}_2\text{Y}(\text{CH}_2)_n\text{Q}$                       |
| CJ 8              | $\text{OCOCH}(\text{OH})\text{CH}_2\text{Q}$                       |
| CJ 8.1            | $\text{OCO}(\text{CH}_2)_n\text{CH}(\text{OH})\text{CH}_2\text{Q}$ |
| CJ 9              | $\text{OCOC}_6\text{H}_5$  |

CJ 10



, wherein Q' is a modified protein; and

CJ 11

$YCO(CH_2)_nCOQ_x$

and wherein for each branch, n is independently an integer; Y is S, O, or NH; and Q is a ~~bacterial toxin carrier or~~ selected from the group consisting of:

- (i) —H;
- (ii) —OH;
- (iii) —CH<sub>2</sub>;
- (iv) —CH;
- (iv a) —OCH<sub>3</sub>;
- (v) —COOH;
- (vi) a halogen;
- (vii) an activated ester or esters, such as 2-nitro-4-sulfophenyl ester and N-oxysuccinimidyl ester;
- (viii) a group or groups reactive toward the carrier, such as a mixed anhydride, acyl halide, acyl azide, alkyl halide, N-maleimide, imino ester, isocyanate, and isothiocyanate;
- (ix) the carrier; and
- (x) another “branch” identified by its “CJ” reference number;

and wherein said hapten-carrier conjugate is capable of eliciting an antibody response against nicotine in a human.

126. (Presently Amended): The ~~hapten-carrier conjugate~~ pharmaceutical composition of claim 125, wherein n is from 3 to 20.

127. (Canceled)

128. (Presently Amended): The ~~hapten-carrier conjugate~~ pharmaceutical composition of claim 125, wherein greater than one hapten is coupled to the carrier.

129. (Canceled)

130. (Canceled)

131. (Presently Amended): ~~A pharmaceutical preparation comprising the hapten-carrier conjugate~~ The pharmaceutical composition of claim 125, ~~and further comprising a~~ pharmaceutically acceptable excipient.

132. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim ~~131~~ 125, further comprising an adjuvant.

133. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim 132, wherein the adjuvant is alum or RIBI adjuvant.

134. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim 133, wherein the adjuvant is alum.

135. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim 134, wherein the alum is aluminum hydroxide or aluminum phosphate.

136. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim ~~131~~ 125, further comprising an auxiliary agent or supplementary active compound.

137. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim ~~131~~ 125 which is suitable for parenteral administration to a human.

138. (Presently Amended): The pharmaceutical ~~preparation~~ composition of claim ~~131~~ 125 which is suitable for oral, dermal or topical administration to a human.

139. (Canceled)

140. (Canceled)

141. (Canceled)

142. (Presently Amended) ~~A pharmaceutical preparation comprising the hapten carrier~~ The pharmaceutical composition of claim 141~~125~~, ~~and further comprising a~~ pharmaceutically acceptable carrier.